

Project Information Handout

Would you rather live near an earthquake fault or, near a volcano?

The reference site, that this project is based on, was created by Mrs. Friend, from Atascadero Junior High. The URL, for the original Internet Project, is no longer functioning.

Introduction

You have been given a chance to choose where to live. Will you choose to live near an earthquake fault or near a volcano? How will you choose? Perhaps you want to know whether earthquakes or volcanoes are more powerful. Or maybe how often earthquakes and volcanoes occur. Maybe you need to determine why earthquakes and volcanoes occur. There will be other questions that you will need to answer.

Note: When you use the Internet for research you usually find that many people post their personal opinions. Be careful to differentiate between factual information and opinion.

The Process and Resources

In this project activity you will be working on your own. You will answer the Question. You will explore Web Pages from all over the world about the science of earthquakes and volcanoes. Because these are real Web Pages you're tapping into, not things made just for schools, the reading level might challenge you. Feel free to use the online Webster dictionary or one in your library or classroom.

Background Information Web Pages

Use the Internet links below to answer the basic questions of who? what? where? when? why? and how? Be creative in exploring the information so that you answer these questions as fully and insightfully as you can.

- <http://www.geo.mtu.edu/volcanoes/hazards/primer/eq.html> - Text document
- <http://www.seismo.unr.edu/ftp/pub/louie/class/100/interior.html> - Layers, P and S waves
- <http://volcano.und.nodak.edu/vwdocs/glossary.html>

Different Perspectives

Use the Internet links provided to answer these questions specifically related to each activity:

Volcanologist	Seismologist
<ol style="list-style-type: none">1. Are the earth's active volcanoes scattered randomly over its surface or clustered along definite zones? Use your Lab notebook to plot on a world map recent volcanoes.2. Are most volcanoes located near the edges or near the centers of continents?3. Describe a pattern in the arrangement of volcanoes around the Pacific Ocean.4. Which major cities in the United States are located on or near active volcanoes?5. Why are there different shapes of volcanoes?6. What causes volcanoes to erupt?7. Can scientists predict volcanic eruptions?	<ol style="list-style-type: none">1. Is there any pattern to the location of strong earthquakes? Use the web site titled 'Recent Global Events (Earthquakes)' to plot recent earthquakes on a world map.2. Is there any relationship between earthquake zones and topography (mountain ranges, plains, oceans, etc.)?3. Which major cities in the United States are located in earthquake zones?4. What causes the ground to shake during an earthquake?5. How do scientists know the exact spot where an earthquake begins?6. Which seismic waves cause the greatest destruction? Why?7. Can seismologists predict earth quakes?

Volcano links to help get you started

- [Volcano names](#)
- There is not any single feature that determines the 'bigness', but the following eruption magnitude scale - called the [Volcanic Explosivity Index](#) or VEI - is based on a number of things that can be observed during an eruption.
- This cross-section shows the [parts of a volcano](#). A conduit feeds magma to the surface. Near the surface, the gas expands and fragments the lava into ash. Some magma passes through dikes to feed vents. Some magma intrudes parallel to layers to make sills.
- Michigan Technological University Volcanoes Page - Volcano Links - Online [Observatories](#)
- There is a [World Map](#) with 12 regions. When a region is clicked on, specifics come up.
- [Volcanic Facts](#)
- General [Volcano Information](#), Cascade Range Volcanoes, Alaskan Volcanoes, Hawaiian Volcanoes, and Volcanic Features and Phenomena

Earthquake links to help get you started

- The images on this page show the [locations of earthquakes](#) of magnitude 5.5 and larger that occurred over a five-year period.
- This is the [graphical way to find web earthquake maps](#) for the region you are interested in.
 - Near-real-time Earthquake Bulletin provided by the [National Earthquake Information Service](#) of the USGS.

You should be able to find other links that will help you in your project to determine where the safest place in the world is to live

Presentation

So, where do you want to live? Near an earthquake, or a volcano? Tell us, using PowerPoint!

PowerPoint Slide Show Components

- Introduction: Question**
- Research: Volcanoes vs Earthquakes**
- Current Data**
- Pros and Cons**
- Trivia/Facts**
- Conclusion**

You will be evaluated by your Peers, Teacher and your own Self Evaluation (Rubrics will be provided)